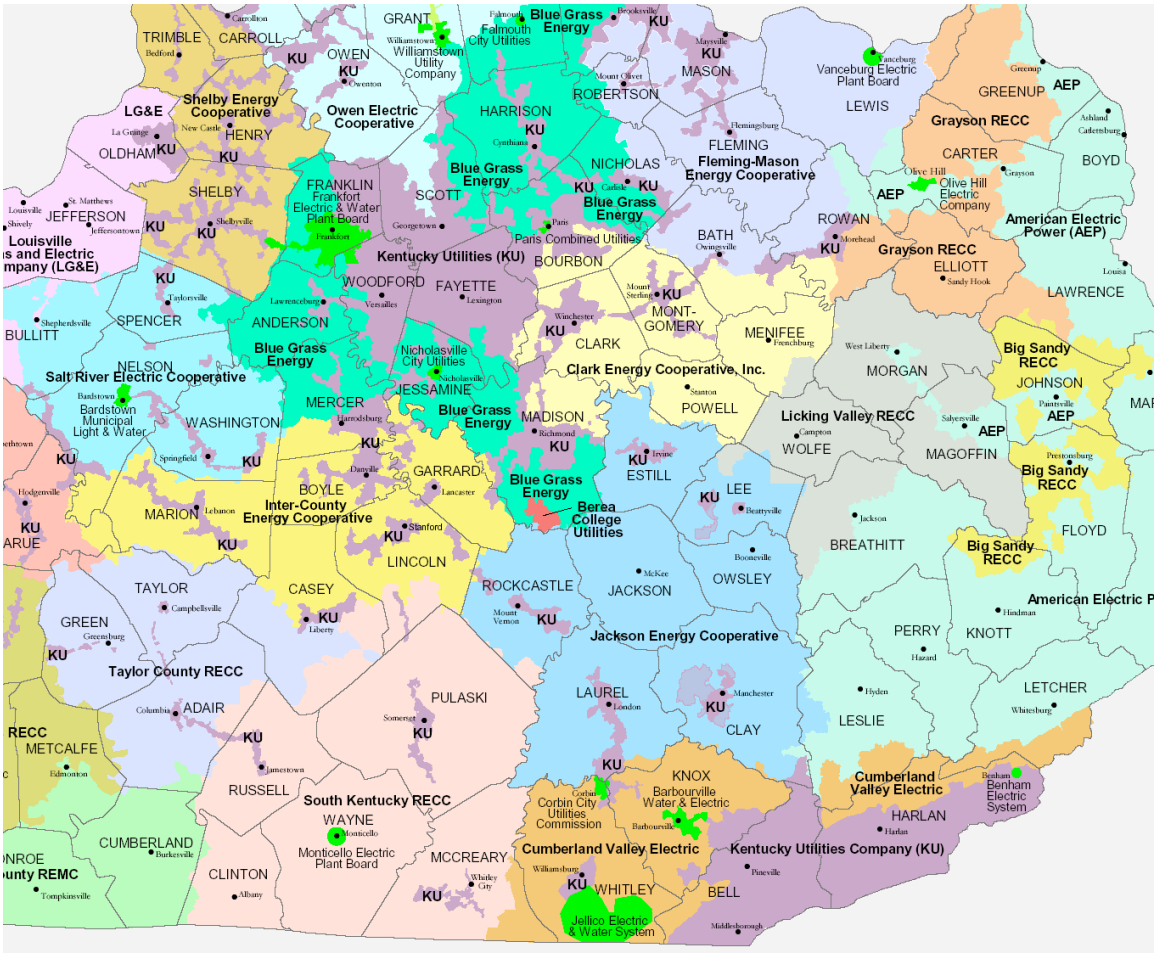
Electric Service Areas Layer

A Proposed Data Attribute & Accuracy Standard

Commonwealth of Kentucky



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http://psc.ky.gov/pschome.htm

Dataset Table Structure

GIS Layer Containing Boundaries for Electric Service Areas in Kentucky: ***ELECSA***

This layer of service areas of electric suppliers in the state of Kentucky has two components: the polygon attribute table (PAT) identifies the service territories; the arc attribute table (AAT) provides metadata and the regulatory classification of boundary segments. The establishment of geographical service areas for retail electric suppliers, the rights of utilities operating within their own territories, and the requirement of map submission to the Kentucky Public Service Commission (PSC) are provided for in Kentucky Revised Statute (KRS) sections 278.016 to 278.020. This layer is used to fulfill the requirement of Kentucky Revised Statute section 278.017 that the Kentucky Public Service Commission prepare a map or maps of uniform scale to show the certified service territories of all retail electric suppliers in Kentucky.

Common Items: The common items are highlighted in yellow.

Programmatic Items: The programmatic items are highlighted in green.

Metadata Items: The metadata items are highlighted in orange. Any metadata fields in the PAT refer to attribute information for the polygon. Boundary metadata is found strictly in the AAT.

ELECSA.PAT

Item Names	Item Specs		Description
AREA			Area of feature in internal units squared calculated by ArcInfo
PERIMETER			Perimeter of feature in internal units calculated by ArcInfo
ELECSA#			Internal feature number for ArcInfo
ELECSA-ID			User-defined feature number for ArcInfo
UTIL_ID	10	I	The Kentucky Public Service Commission utility identification number.
COMPANY_NA	36	C	The name of the utility company as listed in the PSC's Utility Master Database.
UTILITY_TY	10	I	A classification code used in the PSC's Utility Master Database. 0 = Unknown utility and/or probably not regulated by the PSC; 100 = Investor-owned electric utility; 200 = Rural Electric Cooperative Corporation (RECC)
COMMENTS	254	C	Miscellaneous comments.
ELEC_TYPE	15	C	Functional classification of utility based on its regulatory status: Investor Owned (: Investor owned utility); Multi-Service A (Multiple providers in area); Municipal (Municipal utility); TVA (RECC whose power is supplied by the Tennessee Valley Authority); null for no data.
CLASS	55	C	A concatenation of the ELEC_TYPE followed by COMPANY_NA.

(Should I add a field for SquareMiles for area in square miles calculated in Kentucky Single Zone? I could also add metadata fields for date of update change to attributes, person making attribute changes to meet the standard.)

ELECSA.AAT

Item Names	Item Specs			Description
FNODE#	4	B		Internal node number for the beginning of an arc (from-node).
TNODE#	4	B		Internal node number for the end of an arc (to-node).
LPOLY#	4	B		Internal node number for the left polygon.
RPOLY#	4	B		Internal node number for the right polygon.
LENGTH	8	F	5	Length of feature in internal units.
ELECSA#	4	B		Internal feature number.
ELECSA-ID	4	B		User-defined feature number.
SOURCE	20	C		The source of the line is generally from a certified USGS 1:24,000 quandrangle with a filing system code peculiar to the PSC. An example would be "Quad 15-J-3." If changes are made to a regulated boundary, these are done through a case. Those lines have a map source of, for example, "Case 2001-43." The source for unofficial lines is indicated, for example, "WRECC supplied shape."
DATA_DATE	8	D		Date service area boundary was adopted.
INPUT_DATE	8	D		Date arc was added to coverage.
INPUT_BY	12	C		Person who entered the data.
LINE_TYPE	20	C		Classification of the arc. Edge Not Matched (Where regulated electric service area boundaries did not line up well at the edges of adjacent PSC certified territory maps and the gap between line ends represented 300 feet or less, a straight "edge not matched" line was inserted to connect the two discontinuous pieces. This "connector" might run in any direction.); Edge Not Matched Mun (Where municipal utility services area boundaries did not line up well along map edges and the gap between the lines represented 300 feet or less, a straight "edge not matched municipal" line was inserted to connect the two discontinuous pieces); Missing Data (When a boundary segment for a regulated electric service area was missing from the PSC certified territory maps and there was no alternate source of information, a line was inserted to close the polygon. If a portion of a service area that straddled more than one quadrangle was omitted from one of the quads, the missing side was drawn as a straight line along the quad edge. Some missing data lines extended a service area boundary line from the shore of the Ohio River to the State of Kentucky Boundary mid-stream or on the opposite shore. Some missing data segments formed a missing boundary running along the Warren/Allen County line along the Barren River and Bays Fork.); Missing Municipal (A line inserted to close a municipal utility service area where boundary line data was missing. If the boundaries of a municipal utility were entirely unknown, a circle was drawn around the boundary of the city as it appeared on the USGS topographic map. Missing Municipal lines are generally greater than 300 ground feet in length.); Municipal Line (A boundary of a municipal utility service area. The PSC does not regulate municipal electric utility service area boundaries); PSC Line (An electric service area boundary that the Kentucky Public Service Commission (PSC) regulates. The source is either a certified territory map on file at the PSC or a map filed with a case before the PSC); State Boundary (State of Kentucky boundary digitized off USGS quadrangles and checked against DRGs); Unofficial Boundary (A regulated boundary, other than a municipal boundary, coming from a reliable source outside of the PSC certified territory maps. The map

				source is not legally certified by the PSC.)
ONE_ZONE_FT	16	N	3	The length of the arc in feet based on the Kentucky One-Zone Projection.

Layer-Level Metadata

(I'm not sure what to put in here since I've already done the metadata for the Kentucky Geography Network and incorporated it in other places in this document.)

Positional Accuracy

All electric utility regulated by the Kentucky Public Service Commission (all retail electric utilities) are required to supply the PSC with a certified map at a scale of 1:24,000 or larger (greater detail) showing the boundaries of its service territory. A certified line from such a map on file was classified as a "PSC Line." The coverage was digitized from paper maps at the scale of 1:24,000 or larger (greater detail.) Usually, the base map was a USGS quadrangle. Due to the distortion in the paper maps, which were copies of USGS quadrangles, and the errors inherent from transferring lines from one paper map to another when the utilities were compiling these maps, an estimate of positional accuracy is + or - 100 feet. Data acquired from municipal utilities was at a scale of 1:24,000 or larger.

Maintenance & Update Frequency

Changes are incorporated when an order is issued revising the electric service area boundaries regulated by the PSC. At this time there is no regular update scheduled of unregulated boundaries.

Archival and Distribution Data Format

The most recent electric service area layer is offered for download at: http://psc.ky.gov/agencies/psc/gis_2002/gis_web/psc/gis_home.htm . It is available as an ArcInfo Export file (*.e00) in decimal degrees NAD83 and as a set of shapefiles in decimal degrees NAD83. *(Should this be available as Kentucky Single Zone as well in order to meet the standard?) YES*

(I have no plans to archive this data .... should this committee make any recommendations on creating a boundary archive at say 5 year intervals, so that there is a snapshot at a particular time on what the boundaries were?) Wonderful Idea?

Known Issues

The Public Service Commission compiled this layer from legal certified territory boundaries on 1:24,000 USGS quadrangles. In some instances the lines from one topographic map to another did not match up, a few maps were missing or never submitted, and some data was incomplete. In all instances, attempts were made to close the polygons by adding arc segments with the appropriate metadata.

The Public Service Commission does not regulate the boundaries of municipal utilities. In some instances, the municipal utilities choose to file the boundaries with the adjoining regulated utility, or the regulated utility shows those boundaries on its maps filed with the PSC. The municipal utilities were approached in 1999 for new or updated information on their boundaries. In those instances where there was no response, and no boundaries were found on existing maps, the municipal electric service areas were depicted with a circle around the city boundaries. Since electric service areas do not conform to city boundaries, this was a way to create a polygon that is readily recognizable as an artifact.

Disclaimers

This layer of electric service areas was compiled from legal certified territory boundaries and is for informational purposes only. The data and any maps derived from this layer has no legal standing. The user should give credit to the Kentucky Public Service Commission (PSC). The user must abide by the following data disclaimer. All information within the product is believed accurate but is not guaranteed without error. While attempts have been made to insure the correctness of the information presented, neither the Kentucky Public Service Commission nor any party involved in the creation and compilation of the data guarantees their accuracy, completeness, or suitability for a particular use. All critical information should be independently verified.